

ABSTRACT

A watercraft is fitted with any one or combination of a retractable rudder fin and filter systems and improved jet drive systems. A retractable rudder-fin and filter system includes an extendable/retractable blade and a mechanism for extending the blade a
5 variable amount from below a watercraft upon sufficient reduction or cutting-off of power from the drive system. An improved jet drive system is powered by an engine that is supported within a take-out jet structure. The take-out jet structure has an inner housing in which the engine block and jet pump are supported for operation, an outer housing fixed or unitary with the watercraft hull and a suspension structure for
10 suspending the inner housing within the outer housing. The suspension structure has tubing that is pressurized with a gas or fluid. The engine may have a camshaft sprocket or pulley that is configured to be directly connected to drive the impeller or rotor at half-speed drive relative to the engine crankshaft.